

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-002830**Date Inspected:** 03-Jun-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Chen Xi**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

Caltrans Quality Assurance Inspector (QAI) Bruce Berger arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China to periodically monitor welding and Quality Control (QC) functions. While on site the QAI observed and/or discovered the following.

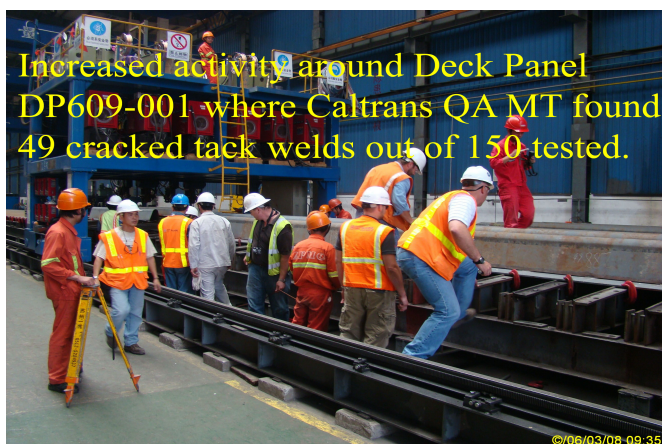
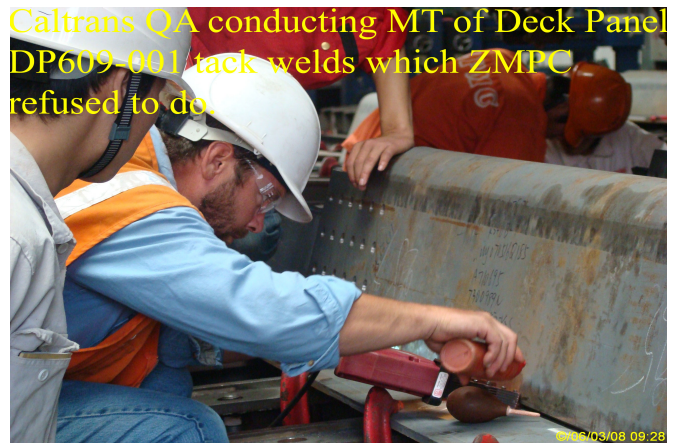
The Caltrans QAI observed welding utilizing the dual process WPS-B-T-2342-U1 (U-rib)-3 welding procedure specification (WPS) for closed rib welding of the Production Monitoring Test (PMT) #1 for Production Panel DP609-001 on closed U-rib Partial Joint Penetration (PJP) welds in Bay #1. ZPMC welding personnel performed Gantry Machine, Gas Metal Arc Welding (GMAW) for the root pass and immediately performed Gantry Machine, Submerged Arc Welding (SAW) for the cover/final pass on PMT #1, using gantry machine #1. Upon completion of the SAW pass on U-rib PJP welds on PMT #1 Visual Testing (VT) was performed on weld #1 through #4 by ZPMC personnel and was accepted. During the ZPMC QC selection of the 500mm test site segments this QAI pointed out to the ZPMC CWI the requirements in the new document "DECK PANEL ACCEPTANCE CRITERIA (MAY 30, 2008)". It was shown where on page one paragraph two the second sentence it stated "The last 500mm continuous segment of the panel will be used for specimen testing". Mr. Chen Xi the CWI took exception to this statement and claimed that ZPMC had never agreed to the terms. It was explained to Mr. Chen Xi that if he did not follow the criteria in the new document that QA would not accept the PMT. Mr. Chen then made several phone calls. The 500mm area was still not selected by ZPMC a 1400 today so QA VT and marking of the macros was not carried out.

Since ZPMC was refusing to comply with the sentence on page four of the new document under the provisions of B. PRODUCTION PANELS: "MT 100% of tack welds after grinding on the jig and before root pass. Again after

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repairs are completed” QA then performed magnetic particle testing of the tack welds between the closed ribs and deck panel. There were a total of 49 unacceptable tack welds out of 150 total tack welds tested.



Summary of Conversations:

This QAI had a conversation with ZPMC QC Manager Zhao Shuang bao; CWI Chen Xi; Translators Shen Xue Jun, Fu Yu Hong and Lay Tao concerning the new requirements shown in the “DECK PANEL ACCEPTANCE CRITERIA (May 30, 2008). Two of the issues at the center of the dispute were first the sentence “The last 500mm continuous segment of the panel will be used for specimen testing”. The second issue was with the sentence under

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B. PRODUCTION PANELS: “MT 100% of tack welds after grinding on the jig and before root pass. Again after repairs are completed”. Zhao Shuang bao made several phone calls after reading the appropriate sections of the paper and stated that ZPMC did not agree to these terms. It was explained to Mr. Zhao and the others that if they selected anywhere but the last 500mm of the Production Monitoring Test Welds then the QAI would not accept the PMT and there would be no macro etching sites selected. It was further explained that if ZPMC did not perform 100% magnetic particle testing of the deck panel tack welds on the gantry and prior to performing root welding then a Non Conformance would be written against the welding.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Patrick Lowery 858 344-2712, who represents the Office of Structural Materials for your project.

Inspected By: Berger,Bruce

Quality Assurance Inspector

Reviewed By: Cochran,Jim

QA Reviewer